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=> d his


     (FILE 'HOME' ENTERED AT 09:36:29 ON 17 JUN 2002)

     FILE 'REGISTRY' ENTERED AT 09:36:33 ON 17 JUN 2002
L1                STRUCTURE UPLOADED
L2             14 S L1
L3            353 S L1 FULL

     FILE 'CA' ENTERED AT 09:37:14 ON 17 JUN 2002
L4             21 S L3
L5              1 S L4 AND HALFBRODT, W?/AU
L6             20 S L4 NOT L5
L7             20 S L6 AND PD < FEBRUARY 2000

     FILE 'CAOLD' ENTERED AT 09:39:58 ON 17 JUN 2002

=> s l3

L8              0 L3
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Connecting via Winsock to STN

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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Jan 25  BLAST(R) searching in REGISTRY available in STN on the Web
 NEWS  3  Jan 29  FSTA has been reloaded and moves to weekly updates
 NEWS  4  Feb 01  DKILIT now produced by FIZ Karlsruhe and has a new update
                  frequency
 NEWS  5  Feb 19  Access via Tymnet and SprintNet Eliminated Effective 3/31/02
 NEWS  6  Mar 08  Gene Names now available in BIOSIS
 NEWS  7  Mar 22  TOXLIT no longer available
 NEWS  8  Mar 22  TRCTHERMO no longer available
 NEWS  9  Mar 28  US Provisional Priorities searched with P in CA/CAplus
                  and USPATFULL
 NEWS 10  Mar 28  LIPINSKI/CALC added for property searching in REGISTRY
 NEWS 11  Apr 02  PAPERCHEM no longer available on STN.  Use PAPERCHEM2
instead.
 NEWS 12  Apr 08  "Ask CAS" for self-help around the clock
 NEWS 13  Apr 09  BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS 14  Apr 09  ZDB will be removed from STN
 NEWS 15  Apr 19  US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB
 NEWS 16  Apr 22  Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS
 NEWS 17  Apr 22  BIOSIS Gene Names now available in TOXCENTER
 NEWS 18  Apr 22  Federal Research in Progress (FEDRIP) now available
 NEWS 19  Jun 03  New e-mail delivery for search results now available
 NEWS 20  Jun 10  MEDLINE Reload
 NEWS 21  Jun 10  PCTFULL has been reloaded

 NEWS EXPRESS  February 1 CURRENT WINDOWS VERSION IS V6.0d,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)
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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:36:29 ON 17 JUN 2002

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 09:36:33 ON 17 JUN 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 16 JUN 2002 HIGHEST RN 431035-49-3
DICTIONARY FILE UPDATES: 16 JUN 2002 HIGHEST RN 431035-49-3

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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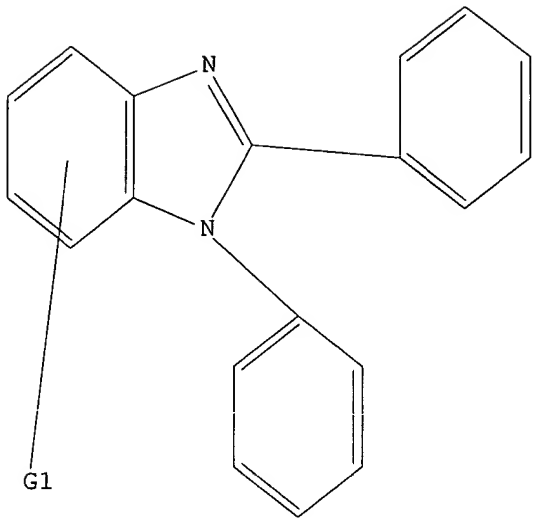
Uploading 9759360a.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS
L1 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 09:37:04 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 163 TO ITERATE

100.0% PROCESSED 163 ITERATIONS 14 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2494 TO 4026
PROJECTED ANSWERS: 56 TO 504

L2 14 SEA SSS SAM L1

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 139.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 09:37:09 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3067 TO ITERATE

100.0% PROCESSED 3067 ITERATIONS 353 ANSWERS
SEARCH TIME: 00.00.01

L3 353 SEA SSS FUL L1

=> file ca

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	140.28	140.49

FILE 'CA' ENTERED AT 09:37:14 ON 17 JUN 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 13 Jun 2002 VOL 136 ISS 25
FILE LAST UPDATED: 13 Jun 2002 (20020613/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s l3

L4          21 L3

=> s l4 and halfbrodt, w?/au

            15 HALFBRODT, W?/AU
L5           1 L4 AND HALFBRODT, W?/AU

=> d l5, ibib abs fhitstr, 1
```

L5 ANSWER 1 OF 1 CA COPYRIGHT 2002 ACS

ACCESSION NUMBER:	135:107328 CA
TITLE:	Preparation of 1,2-diarylbenzimidazolealkanoates and analogs for treatment of disorders mediated by microglia activation
INVENTOR(S):	Kuhnke, Joachim; **Halfbrodt, Wolfgang;** Moenning, Ursula
PATENT ASSIGNEE(S):	Schering Aktiengesellschaft, Germany
SOURCE:	PCT Int. Appl., 141 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	German
FAMILY ACC. NUM. COUNT:	1

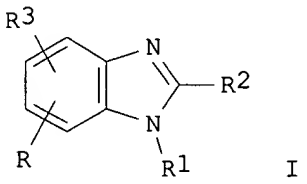
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001051473	A1	20010719	WO 2001-EP334	20010112
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002006948	A1	20020117	US 2001-759360	20010116

PRIORITY APPLN. INFO.: DE 2000-10002898 A 20000114
US 2000-178324P P 20000127

OTHER SOURCE(S): MARPAT 135:107328

GI



I

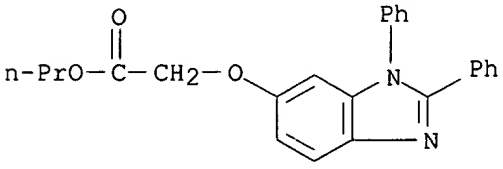
AB Title compds. [I; R = ZZ1R4; R1,R2 = (un)substituted (hetero)aryl; R3 = H, halo, substituted alkyl, alkoxy, etc.; R4 = CO2H, alkoxycarbonyl, CONH2, SO3H, etc.; Z = O, (alkyl)imino, acylimino; Z1 = (heteroatom-interrupted) alkyl(en)ylene, etc.] were prepd. Thus, I (R1 = R2 = Ph, R3 = H)(II; R = 6-OH) was etherified by BrCH2CO2CHMe3 to give II (R = 6-OCH2CO2CHMe3). Data for biol. activity of I were given.

IT **350231-38-8P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1,2-diarylbenzimidazolealkanoates and analogs for treatment of disorders mediated by microglia activation)

RN 350231-38-8 CA

CN Acetic acid, [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, propyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

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(FILE 'HOME' ENTERED AT 09:36:29 ON 17 JUN 2002)

FILE 'REGISTRY' ENTERED AT 09:36:33 ON 17 JUN 2002
L1 STRUCTURE UPLOADED
L2 14 S L1
L3 353 S L1 FULL

FILE 'CA' ENTERED AT 09:37:14 ON 17 JUN 2002
L4 21 S L3
L5 1 S L4 AND HALFBRODT, W?/AU

=> s l4 not l5

L6 20 L4 NOT L5

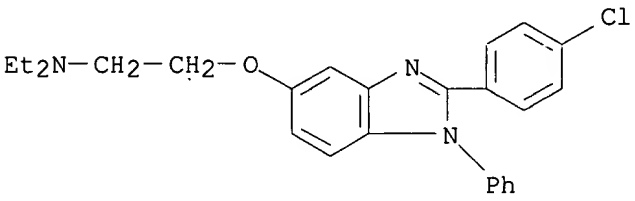
=> s l6 and pd < february 2000

19964585 PD < FEBRUARY 2000
(PD<20000200)
L7 20 L6 AND PD < FEBRUARY 2000

=> d l7, ibib abs fhitstr, 1-20

L7 ANSWER 1 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 133:202600 CA
TITLE: A quantitative structure-activity relationship analysis of some substituted oxazolopyridines and benzimidazoles with antiinflammatory activity
AUTHOR(S): Chakravarti, S. K.; Chaturvedi, S. C.
CORPORATE SOURCE: Department of Pharmacy, Shri Govindram Seksaria Institute of Technology and Science, Indore, 452003, India
SOURCE: Indian Journal of Pharmaceutical Sciences (**1999**), 61(4), 206-212
CODEN: IJSIDW; ISSN: 0250-474X
PUBLISHER: Indian Pharmaceutical Association
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The lowest energy conformations of some antiinflammatory 2-(substituted phenyl)oxazolopyridines, 2-(substituted pyridinyl) benzimidazoles and 1H-benzimidazoles were calcd. and quant. structure-activity relationship anal. was then performed on each category of compds. using thermodn., electronic and spatial descriptors. The resulting QSAR equations were validated by leave-one-out cross validation method. Electronic parameter (dipole moment) and spatial parameters (mol. vol. and principal moment of inertia) were found to have significant correlation with antiinflammatory activity.

IT **289893-74-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study);
USES
(Uses)
(QSAR of substituted oxazolopyridines and benzimidazoles with
antiinflammatory activity)
RN 289893-74-9 CA
CN Ethanamine,
2-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]oxy]-N,N-
diethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 127:293221 CA
TITLE: Methods of treating or preventing interstitial cystitis using substituted benzimidazoles
INVENTOR(S): Iyengar, Smriti; Muhlhauser, Mark A.; Thor, Karl B.
PATENT ASSIGNEE(S): Eli Lilly and Company, USA; Iyengar, Smriti; Muhlhauser, Mark A.; Thor, Karl B.
SOURCE: PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9733873	A1	19970918	WO 1997-US3895	19970307	<--
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
CA 2248013	AA	19970918	CA 1997-2248013	19970307	<--
AU 9722078	A1	19971001	AU 1997-22078	19970307	<--
JP 2000506529	T2	20000530	JP 1997-532805	19970307	
US 6025379	A	20000215	US 1998-125956	19980825	

PRIORITY APPLN. INFO.: US 1996-13129P P 19960311
WO 1997-US3895 W 19970307

OTHER SOURCE(S): MARPAT 127:293221
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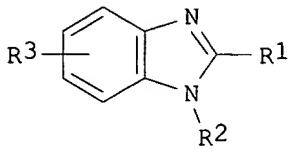

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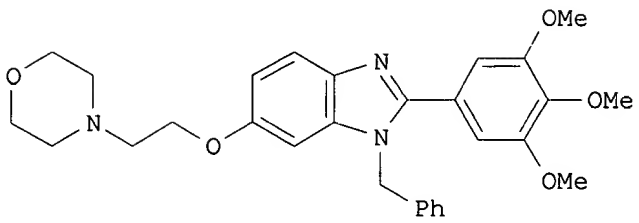


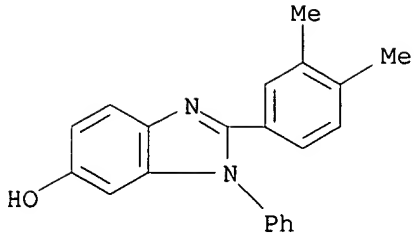
II

AB The invention provides methods for the treatment or prevention of interstitial cystitis or urethral syndrome using substituted benzimidazoles I [R1, R2 = H, alkyl, alkoxy, (un)substituted Ph, cycloalkyl, naphthyl, heterocyclyl, phenylalkyl, heterocyclylalkoxy, etc.; R3 = H, NO2, CF3, halo, alkanoyl, amino, alkyl, alkoxy, alkylthio, cycloalkyl, (un)substituted heterocyclyl, amino, aminoalkoxy, aminoalkyl, heterocyclylalkyl, heterocyclylalkoxy, etc.; only 1 or R1 and R2 may be H] or their pharmaceutically acceptable salts or solvates. Approx. 170 synthetic examples of I are given, with the products serving as target compds. and/or intermediates. Use of specific preferred compds. contg. cyclic or acyclic amine sidechains is also claimed. For instance, etherification of 1-benzyl-2-(3,4,5-trimethoxyphenyl)-6-hydroxybenzimidazole-HCl (prepn. given) with 4-(2-chloroethyl)morpholine-HCl in acetone in the presence of K2CO3 gave preferred title compd. II. Methods for the bioassay and clin. evaluation of I are described (no data).

IT **175713-99-2P**, 1-Phenyl-2-(3,4-dimethylphenyl)-6-hydroxybenzimidazole
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(product and/or intermediate; prepn. of benzimidazole derivs. for treatment of interstitial cystitis)

RN 175713-99-2 CA

CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 3 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 127:262677 CA
TITLE: Methods of treating or preventing sleep apnea using di- and trisubstituted benzimidazoles
INVENTOR(S): Gitter, Bruce D.; Iyengar, Smriti
PATENT ASSIGNEE(S): Eli Lilly and Co., USA; Gitter, Bruce D.; Iyengar, Smriti
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9731635	A1	19970904	WO 1997-US3113	19970226	<--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9721390	A1	19970916	AU 1997-21390	19970226	<--
US 6030992	A	20000229	US 1998-142026	19980827	

PRIORITY APPLN. INFO.: US 1996-12665P P 19960301
WO 1997-US3113 W 19970226
OTHER SOURCE(S): MARPAT 127:262677
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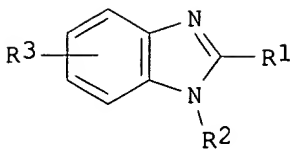

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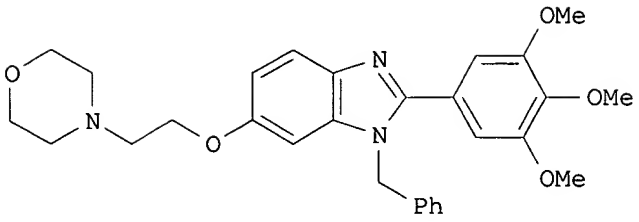


II

AB This invention provides methods for the treatment or prevention of sleep apnea (no data) using substituted benzimidazoles I [R1, R2 = H, alkyl, alkoxy, (un)substituted heterocyclyl, phenylalkoxy, phenylalkylidenyl, heterocyclylalkoxy, etc.; R3 = H, NO2, alkanoyl, alkyl, alkoxy, halo, (un)substituted amino, heterocyclyl, heterocyclylalkoxy, hydroxyalkyl, etc.; provided that both of R1 and R2 cannot be H] and their pharmaceutically acceptable salts or solvates. Examples include 174 syntheses of I, including both the preferred amine-contg. target compds., and other compds. I serving primarily as intermediates. Eleven pharmaceutical formulations are also given. For instance, the intermediate compd. I.HCl [R1 = 3,4,5-trimethoxyphenyl; R2 = CH2Ph; R3 = 6-OH] (prepd. in 3 steps from 4-amino-3-nitrophenol) was etherified with 4-(2-chloroethyl)morpholine-HCl using K2CO3 in acetone to give a preferred title compd., II.

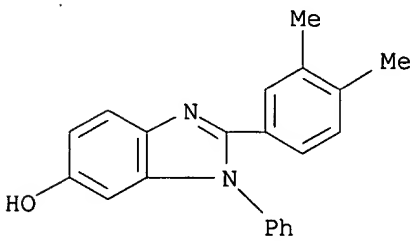
IT **175713-99-2P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

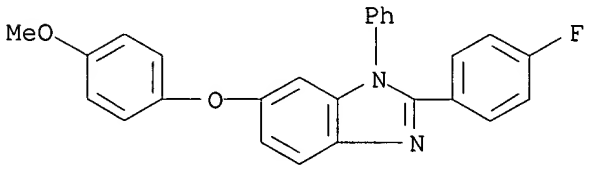
(drug and/or intermediate; prepn. of benzimidazoles for treatment or prevention of sleep apnea)

RN 175713-99-2 CA

CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



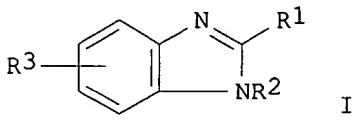
L7 ANSWER 4 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 125:329613 CA
TITLE: Poly(aryl ether benzimidazoles)
AUTHOR(S): Twieg, R.; Matray, T.; Hedrick, J. L.
CORPORATE SOURCE: Almaden Research Center, IBM Research Division, San Jose, CA, 95120-6099, USA
SOURCE: Macromolecules (**1996**), 29(23), 7335-7341
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A method for prepg. poly(aryl ether benzimidazoles) was developed in which the generation of an ether linkage is the polymer-forming reaction. An appropriately substituted dihalo bibenzimidazole, 2,2'-bis(4-fluorophenyl)-6,6'-bibenzimidazole, was prepd. and polymd. with bisphenols in aprotic dipolar solvents in the presence of K2CO3. High mol. wt. polymers were obtained with Tg 220-250.degree.. The resulting polymers were processable from soln. and showed good thermal stability. This method affords poly(benzimidazole) analogs of poly(ether imides) with many of the same desirable characteristics.
IT **175237-95-3P**, 2-(4-Fluorophenyl)-6-(4-methoxyphenoxy)-1-phenylbenzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(intermediate; in prepn. of arom. polyether-polybenzimidazoles)
RN 175237-95-3 CA
CN 1H-Benzimidazole, 2-(4-fluorophenyl)-6-(4-methoxyphenoxy)-1-phenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 5 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 125:300996 CA
TITLE: Preparation of benzimidazoles useful for treating physiological disorders associated with .beta.-amyloid peptide
INVENTOR(S): Lunn, William H. W.; Monn, James A.; Zimmerman, Dennis M.
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: U.S., 30 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5552426	A	19960903	US 1994-235400	19940429 <--

OTHER SOURCE(S): MARPAT 125:300996
GI

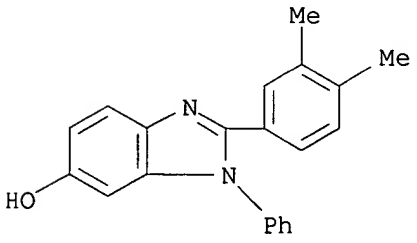


I

AB The title compds. [I; R1 = H, alkoxy, (un)substituted alkyl, (un)substituted Ph, (un)substituted naphthyl, (un)substituted cycloalkyl; R2 = H, alkyl, alkoxy, (un)substituted Ph, (un)substituted naphthyl, etc.; R3 = H, alkanoyl, amino, alkyl, cycloalkyl, halogen, alkylthio, CF3, etc.] [e.g., 1-phenyl-2-[3,4-dimethylphenyl]-6-[2-(1-piperidinyl)ethoxy]benzimidazole], which are useful in treating or preventing conditions assocd. with .beta.-amyloid peptide (e.g., Alzheimer's disease, Down's syndrome, etc.), are prepd. and I-contg. formulations presented.

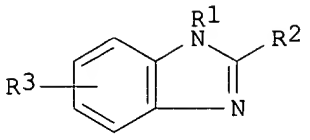
IT **175713-99-2P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazoles useful for treating physiol. disorders assocd. with .beta.-amyloid peptide)

RN 175713-99-2 CA
CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 6 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 125:247689 CA
TITLE: Synthesis of a group of 1H-benzimidazoles and their screening for antiinflammatory activity
AUTHOR(S): Evans, D.; Hicks, T. A.; Williamson, W. R. N.; Dawson, W.; Meacocok S. C. R.; Kitchen, E. A.
CORPORATE SOURCE: Organic Chem. Dep., Lilly Res. Centre, Ltd., Surrey, GU20 6PH, UK
SOURCE: Eur. J. Med. Chem. (**1996**), 31(7-8), 635-642

CODEN: EJMCA5; ISSN: 0223-5234
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

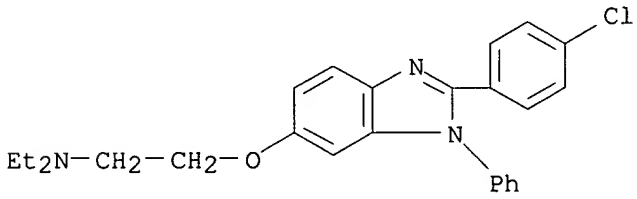


I

AB 1H-Benzimidazoles, e.g., I [R1 = H, Me, Ph, etc., R2 = 4-ClC6H4, 4-HOC6H4, H, etc., R3 = 5(6)-MeO, 7-OEt, 7-OH, 5-Cl, 5-N-pyrrolidinoethoxy, etc.], were prepd. and tested for antiinflammatory activity.

IT **182060-25-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and antiinflammatory activity of benzimidazoles)

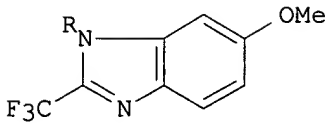
RN 182060-25-9 CA
CN Ethanamine, 2-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-diethyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

L7 ANSWER 7 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 125:10699 CA
TITLE: Synthesis of 2-(Perfluoroalkyl)- and 2-(Perfluoroaryl)benzimidazoles by Oxidative Intramolecular Cyclization of Perfluoroalkyl and Aryl Imidamides
AUTHOR(S): Kobayashi, Masafumi; Uneyama, Kenji
CORPORATE SOURCE: Faculty of Engineering, Okayama University, Okayama, 700, Japan
SOURCE: J. Org. Chem. (**1996**), 61(11), 3902-3905
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:10699
GI



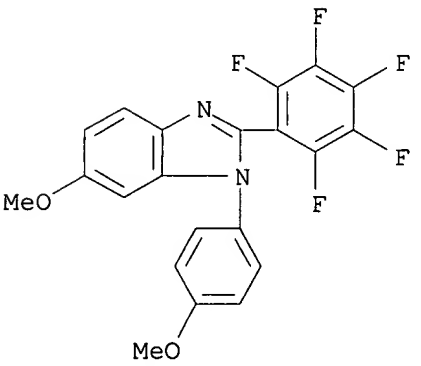
I

AB Oxidative intramol. cyclization of perfluoroalkyl and aryl imidamides and related compds. has been examd. Oxidn. with CAN and electrochem. oxidn. gave benzimidazoles in reasonable yields. E.g., electrooxidn. of 4-MeOC6H4NHC(CF3):NC6H4OMe-4 in MeCN gave benzimidazole I (R = 4-MeOC6H4) quant. In contrast, lead(IV) acetate oxidn. gave the benzimidazole together with some benzoquinone imines and their acetals. Chlorination occurred predominantly on the arom. ring by oxidn. with t-Bu hypochlorite or NCS. The electrochem. oxidative cyclization to benzimidazoles can be applied to the corresponding alkyl, Ph, and pentafluorophenyl imidamides.

IT **177422-41-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of benzimidazoles by oxidative intramol. cyclization of imidamides)

RN 177422-41-2 CA

CN 1H-Benzimidazole, 6-methoxy-1-(4-methoxyphenyl)-2-(pentafluorophenyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 8 OF 20 CA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 124:289536 CA

TITLE: Preparation of benzimidazole derivatives as non-peptide tachykinin receptor antagonists

INVENTOR(S): Burns, Robert Frederick, Jr.; Gitter, Bruce Donald; Monn, James Allen; Zimmerman, Dennis Michael

PATENT ASSIGNEE(S): Lilly, Eli, and Co., USA

SOURCE: Can. Pat. Appl., 143 pp.
CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2148053	AA	19951030	CA 1995-2148053	19950427 <--
EP 694535	A1	19960131	EP 1995-302707	19950424 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
ZA 9503311	A	19961024	ZA 1995-3311	19950424 <--
BR 9501770	A	19951121	BR 1995-1770	19950425 <--
AU 9517656	A1	19951109	AU 1995-17656	19950426 <--
CN 1113236	A	19951213	CN 1995-104725	19950426 <--
NO 9501613	A	19951030	NO 1995-1613	19950427 <--
HU 70637	A2	19951030	HU 1995-1249	19950428 <--
FI 9502064	A	19951030	FI 1995-2064	19950428 <--
JP 08109169	A2	19960430	JP 1995-105297	19950428 <--

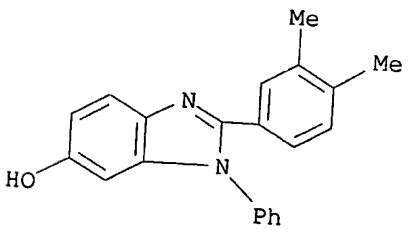
PRIORITY APPLN. INFO.: US 1994-235401 19940429
OTHER SOURCE(S): CASREACT 124:289536; MARPAT 124:289536
GI

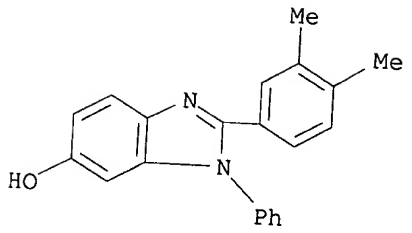
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; R1, R2 = H, C1-C12 alkyl, C1-C6 alkoxy, etc.; R3 = H, NO2, C1-C6 alkanoyl, etc.], useful in treatment of CNS disorders, acute and chronic obstructive airway diseases, inflammatory diseases, allergies, cutaneous diseases, etc., were prepd. and formulated. Condensation of 4,3-H2N(O2N)C6H3OH with 3,4,5-(MeO)3C6H2COCl in PhNMe2/PhMe followed by reaction of the intermediate II with PhCHO under H2 in the presence of Pd/C in DMF, cyclization of the intermediate III using POCl3/CHCl3, deprotection of the 6-OH group with 1N NaOH/THF and acidification with 1N HCl afforded I.HCl [R1 = 3,4,5-(MeO)3C6H2; R2 = PhCH2; R3 = 6-OH] which showed IC50 of 1.130 .mu.M against binding to human NK-1 receptor in cultured cell assays.

IT **175713-99-2P**
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazole derivs. as non-peptide tachykinin receptor antagonists)

RN 175713-99-2 CA
CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



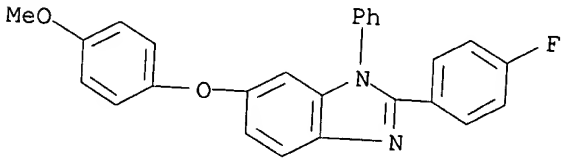


L7 ANSWER 9 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 124:261890 CA
TITLE: Poly(aryl ether benzazole)s. Self-polymerization of monomers via benzimidazole-activated ether synthesis
AUTHOR(S): Matray, T. J.; Twieg, R. J.; Hedrick, James L.
CORPORATE SOURCE: Research Division, IBM Almaden Research Center, San Jose, CA, 95120-6099, USA
SOURCE: ACS Symp. Ser. (**1996**), 624(Step-Growth Polymers for High-Performance Materials), 266-75
CODEN: ACSMC8; ISSN: 0097-6156
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 1-Phenyl-2-(4-fluorophenyl)-5-(4-hydroxyphenoxy)benzimidazole was synthesized in several steps and homopolymd. to give a polyether. The polymer had glass temp. about 240.degree..

IT **175237-95-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate; prepn. and homopolymn. of 1-phenyl-2-(4-fluorophenyl)-5-(4-hydroxyphenoxy)benzimidazole)

RN 175237-95-3 CA
CN 1H-Benzimidazole, 2-(4-fluorophenyl)-6-(4-methoxyphenoxy)-1-phenyl- (9CI) (CA INDEX NAME)

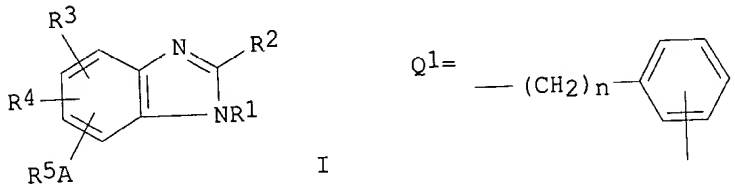


L7 ANSWER 10 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 123:143893 CA
TITLE: Preparation of benzimidazoles as prostacyclin PGI2 mimetics.
INVENTOR(S): Kuhnke, Joachim; Eckle, Emil; Thierauch, Karl-Heinz; Verhallen, Peter
PATENT ASSIGNEE(S): Schering A.-G., Germany
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4330959	A1	19950316	DE 1993-4330959	19930909 <--
WO 9507263	A1	19950316	WO 1994-EP2948	19940906 <--

W: JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: DE 1993-4330959 19930909
OTHER SOURCE(S): MARPAT 123:143893
GI

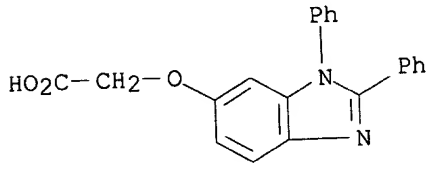


I

AB Title compds. [I; R1, R2 = (substituted) Ph, heteroaryl; R3, R4 = H, halo, alkyl, perfluoroalkyl, alkoxy, perfluoroalkoxy, carboxyl, alkoxycarbonyl, NO2, amino, etc.; A = bond, (O- or S-interrupted) alkylene, alkenylene, alkynylene, Q1; n = 1-4; R5 = carboxyl, SO3H, PO3H2, tetrazolyl], were prepd. as PGI2 mimetics and TXA2/PGH2 antagonists useful in treating thrombosis, arteriosclerosis, and hyperlipidemia (no data). Thus, 1,2-diphenyl-1H-benzimidazol-6-ol, MeO2CCH2Br, and K2CO3 were refluxed 3 h in acetone to give Me [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]acetate, which was stirred 24 h in a mixt. of aq. NaOH, THF, and MeOH to give [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]acetic acid.

IT **166396-70-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazoles as prostacyclin PGI2 mimetics)

RN 166396-70-9 CA
CN Acetic acid, [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



L7 ANSWER 11 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 119:203995 CA

TITLE: Synthesis of polybenzimidazoles via aromatic nucleophilic substitution reactions of self-polymerizable (A-B) monomers

AUTHOR(S): Harris, Frank W.; Ahn, Byung H.; Cheng, Stephen Z. D.

CORPORATE SOURCE: Coll. Polym. Sci. Polym., Univ. Akron, Akron, OH, 44325-3909, USA

SOURCE: Polymer (**1993**), 34(14), 3083-95
CODEN: POLMAG; ISSN: 0032-3861

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Self-polymerizable (A-B) polybenzimidazole (PBI) monomers have been prepd. and converted to PBIs via arom. nucleophilic substitution reactions. Thus, 2(4-fluorophenyl)-5(6)-hydroxy-benzimidazole (I) and 2-(4-fluorophenyl)-5-hydroxy-1-phenylbenzimidazole (II) have been prepd. and polymd. at 230-250.degree. in N-cyclohexyl-2-pyrrolidinone contg. potassium carbonate. The imidazole ring in these monomers activated the F atom for nucleophilic displacement by the phenate ion. The resulting polymers were sol. in N-methyl-2-pyrrolidinone (NMP) and had intrinsic viscosities that ranged from 0.6 to 2.6 dL g-1 (NMP at 30.degree.). The PBI obtained from I was semicryst. with a glass transition temp. (Tg) of 365.degree., while the poly(N-phenylbenzimidazole) (III) obtained from II was amorphous with a Tg of 278.degree.. Thin films of the III polymer were tough and flexible, having tensile strength as high as 100 mPa, while those of the PBI polymer were brittle. The PBI retained 95% of its wt. to 460.degree. when subjected to thermogravimetric anal. (TGA) in air, while the III retained 95% of its wt. to 535.degree. under the same conditions. In order to lower the Tg and also to improve the mech. properties of the PBI, II was copolymd. with I. The Tg values of the copolymers decreased from 342.degree. to 296.degree. as their II content increased from 25 to 75 mol%, while the tensile strengths of thin films of the copolymers increased with increasing II content. Random copolymers were also prepd. from a self-polymerizable poly(phenylquinoxaline) monomer and I.

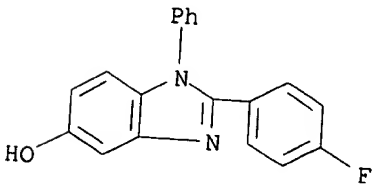
IT **150773-65-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and crystallinity and thermal properties of)

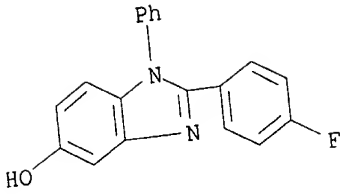
RN 150773-65-2 CA

CN 1H-Benzimidazol-5-ol, 2-(4-fluorophenyl)-1-phenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 150772-74-0
CMF C19 H13 F N2 O

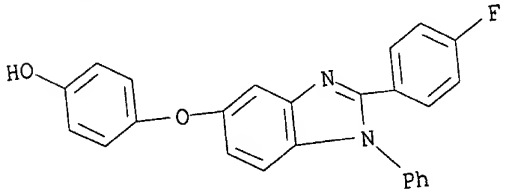




L7 ANSWER 12 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 119:28742 CA
TITLE: Cyclic ureas as solvents for poly(aryl ether) synthesis
AUTHOR(S): Labadie, J. W.; Carter, K. R.; Hedrick, J. L.; Jonsson, H.; Kim, S. Y.; Twieg, R. J.
CORPORATE SOURCE: Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6077, USA
SOURCE: Polym. Bull. (Berlin) (**1993**), 30(1), 25-31
CODEN: POBUDR; ISSN: 0170-0839
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The synthesis of various poly(aryl ethers) and related small mol. compds. were examd. using the cyclic urea 1,3-Dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone (N,N'-dimethylpropylene urea, DMPU) as the solvent. Generally higher mol. wt. or yields were obtained under less stringent conditions, as compared to other common polymn. solvents. The enhancement was most notable for polymns. involving aryl fluorides with a lower reactivity than conventionally activated dihalide monomers, e.g. ketones, sulfones. Poly(aryl ethers) displayed excellent soly. in DMPU, which was beneficial in the cases where more rigid heterocyclic-aryl ether polymers are formed.
IT **148185-99-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. in DMPU solvent and intrinsic viscosity of)
RN 148185-99-3 CA
CN Phenol, 4-[[2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-5-yl]oxy]-, homopolymer (9CI) (CA INDEX NAME)

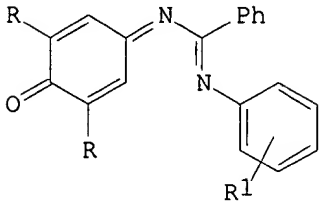
CM 1

CRN 148185-98-2
CMF C25 H17 F N2 O2

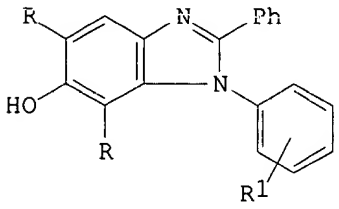


L7 ANSWER 13 OF 20 CA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 109:190316 CA
TITLE: New benzimidazole synthesis
AUTHOR(S): Benincori, T.; Sannicolo, F.
CORPORATE SOURCE: CNR, Univ. Milano, Milan, 20133, Italy
SOURCE: J. Heterocycl. Chem. (**1988**), 25(3), 1029-33
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:190316
GI



I

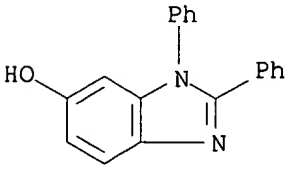


II

AB Thermal or acid catalyzed cyclization of several N-(N-arylbenzimidoyl)-1,4-benzoquinoneimines I (R = H, Cl, Me; R1 = H, 4-NO2, 4-MeO, 4-Cl, 4-Me, 2,5-Me2, 2,6-Me2) affords 1-aryl-6-hydroxy-2-phenylbenzimidazoles II in fairly good yields. Structural proofs and kinetic support for the reaction mechanism are given.

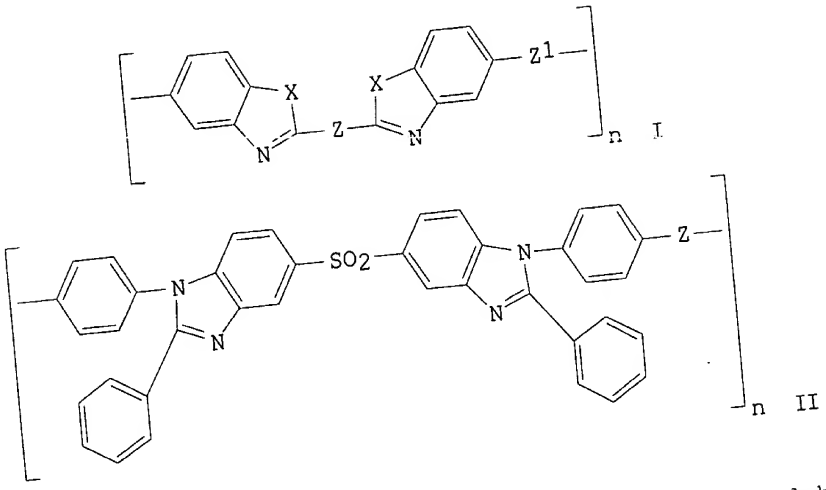
IT **117125-04-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 117125-04-9 CA
CN 1H-Benzimidazol-6-ol, 1,2-diphenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 14 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 94:66132 CA
TITLE: Reductive polyheterocyclization - a new general method
for the synthesis of polybenzazoles
AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Tugushi, D. S.; Kipiani, L. G.; Dzhaparidze, Z. Sh.; Shubashvili, A. S.; Gverdtsiteli, I. M.
CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR
SOURCE: Izv. Akad. Nauk Gruz. SSR, Ser. Khim. (**1980**), 6(2), 122-8

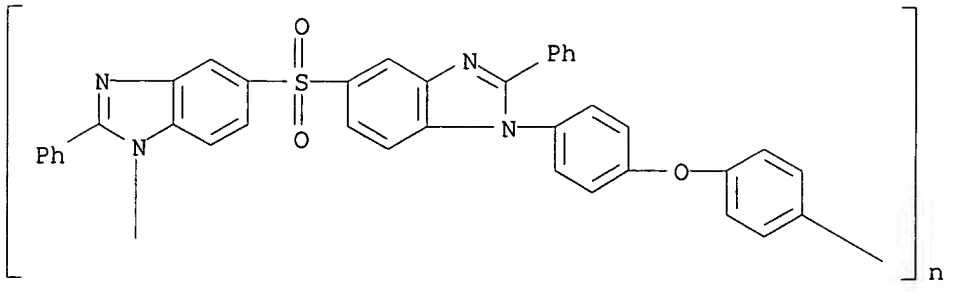
CODEN: IGSKDH
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



AB The title reaction was used for the prepn. of polybenz(ox)imidazoles (I, X = N, O; Z = m-C6H4, p-C6H4, p-C6H4OC6H4-p; Z1 = O, CH2, CMe2), and polybenzimidazoles (II, Z = O, CH2). I were prepd. by reacting bis(o-nitro amines) or bis(o-nitrophenols) with dicarboxylic acid chlorides, followed by redn. of the resulting poly(o-nitroamides) or poly(o-nitro esters) with Fe-HCl resulting in simultaneous cyclization. II were prepd. by reacting bis(anilines) with 4,4'-sulfonylbis[1-chloro-2-nitrobenzene], redn. of the resulting poly(o-nitroamines), acylation with benzoyl chloride [98-88-4], and cyclization. Properties of I and II, and advantages of reductive polyheterocyclization over the previously employed method utilizing bis(o-diamines) were discussed.

IT **67178-25-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and properties of)

RN 67178-25-0 CA
CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



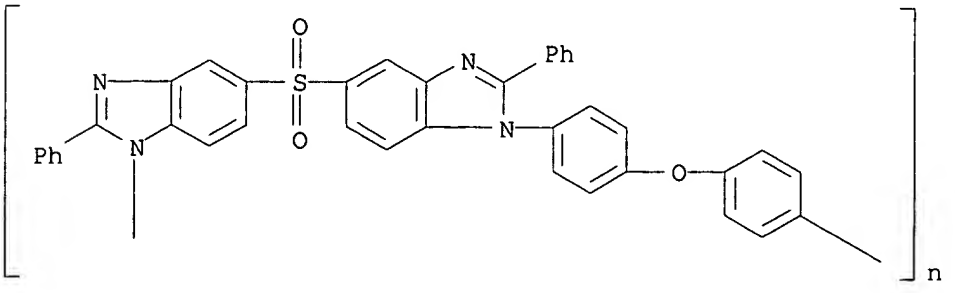
L7 ANSWER 15 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 91:193668 CA
TITLE: Synthesis of poly(1,2-diarylbenzimidazoles) by modified reductive polyheterocyclization
AUTHOR(S): Rusanov, A. L.; Tugushi, D. S.; Shubashvili, A. S.; Gverdtsiteli, I. M.; Korshak, V. V.
CORPORATE SOURCE: Tbilis. Gos. Univ., Tiflis, USSR
SOURCE: Vysokomol. Soedin., Ser. A (**1979**), 21(8), 1873-7
CODEN: VYSAAF; ISSN: 0507-5475
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The title polymers were prepd. by polymn. of bis(4-halo-3-nitrophenyl) sulfones with arom. diamines, redn. to poly(o-amino)amines, benzoylation, and thermal cyclization. Optimal reaction conditions, properties of polymers and intermediates, and the influence of diamine structure on polymer properties were detd. The products were thermally stable to 450-90.degree. (5% wt. loss in air).

IT **67178-25-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of)

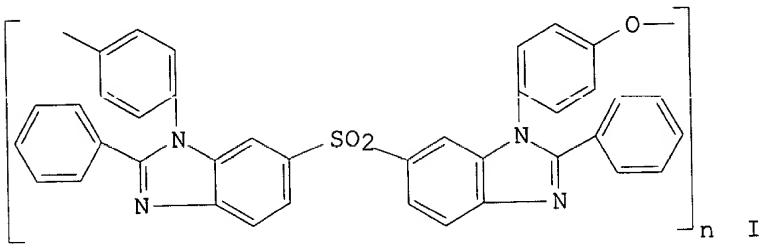
RN 67178-25-0 CA

CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L7 ANSWER 16 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 89:110475 CA
TITLE: Synthesis and study of poly[(1,2-diaryl)benzimidazoles]

AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Gverdtsiteli, I. M.; Tugushi, D. S.; Shubashvili, A. S.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Dokl. Akad. Nauk SSSR (**1978**), 240(2), 346-8 [Chem.]
CODEN: DANKAS; ISSN: 0002-3264
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI

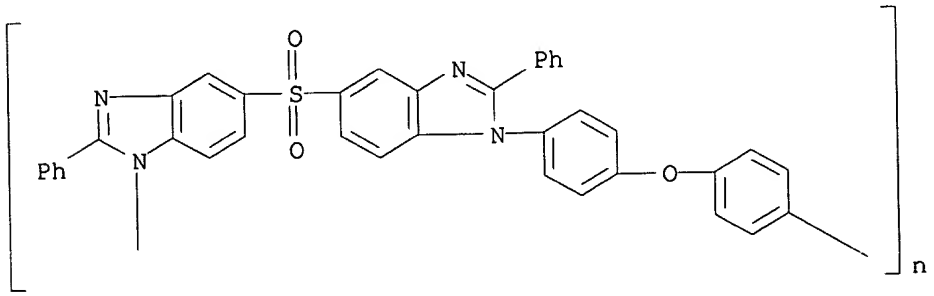


I

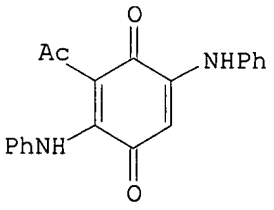
AB Polybenzimidazole I [**67178-25-0**] was prepd. by a modified reductive polyheterocyclization that included polycondensation of 4,4'-diaminodiphenyl ether with 4,4'-dichloro-3,3'-dinitrodiphenyl sulfone, redn. of the resulting polymer [56899-96-8] with Fe-HCl to poly(o-amino amine) [62721-12-4], acylation of the latter with benzoyl chloride [98-88-4], and cyclization of poly(o-benzamido amine) [67178-26-1] to I in the presence of HCl. The yield of I was quant. The structures of I and of the intermediates was supported by IR spectra. I was sol. in dipolar aprotic solvents (N-methyl-2-pyrrolidinone, DMF, etc.), H2SO4, F3CCO2H, etc., giving highly concd. solns. (<25%). Films of I cast from DMF solns. had tensile strength 1100 kg/cm2 and elongation at break 15%. I softened at 300.degree. and, according to dynamic thermogravimetry in air, lost 10% of its wt. at 450.degree..

IT **67178-25-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of)

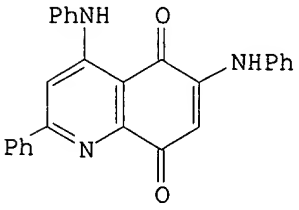
RN 67178-25-0 CA
CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



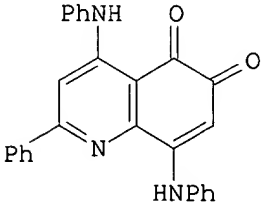
L7 ANSWER 17 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 88:105094 CA
TITLE: Reaction of 3-acetyl-2,5-dianilino-1,4-benzoquinone and N1-phenylbenzamidine; a synthesis of quinolinequinones
AUTHOR(S): Schaefer, Wolfram; Falkner, Christine
CORPORATE SOURCE: Max-Planck-Inst. Biochem., Martinsried, Ger.
SOURCE: Justus Liebigs Ann. Chem. (**1977**), (9), 1445-56
CODEN: JLACBF
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



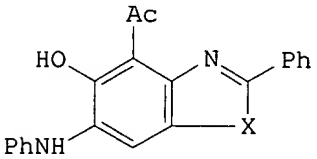
I



II



III

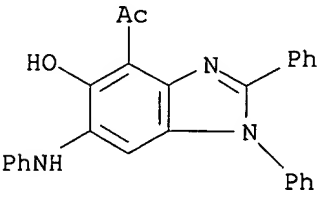


IV

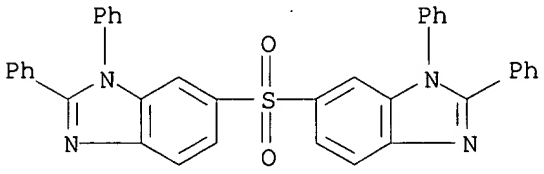
AB Benzoquinone I reacted with PhC(:NH)NHPh to give 49% quinolinequinone II, 2.6% quinolinequinone III, 4% benzoxazole IV (X = O), and benzimidazole IV (X = NPh).

IT **65908-26-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 65908-26-1 CA
CN Ethanone,
1-[5-hydroxy-1,2-diphenyl-6-(phenylamino)-1H-benzimidazol-4-yl]-
(9CI) (CA INDEX NAME)

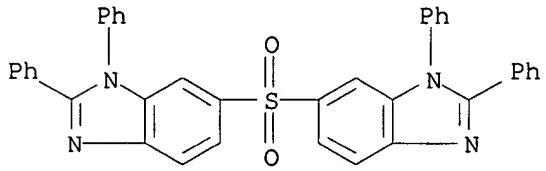


L7 ANSWER 18 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 78:136162 CA
TITLE: Synthesis and study of N-phenyl-substituted bibenzimidazoles
AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Tugushi, D. S.; Leont'eva, S. N.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Khim. Geterotsikl. Soedin. (**1973**), (2), 252-5
CODEN: KGSSAQ
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB N-Phenylbibenzimidazoles (I; Q = p-C6H4, m-C6H4, 4,4'-(c6H4)2, ,6-C10H6, 4,4'-C6H4SO2C6H4) were prepd. in 65-80% yields by treatment of o-H2NC6H4NHPh with Q(COCl)2 to give 70-90% dianilides Q(CONHC6H4NHPh-o)2, which were the cyclodehydrated. Similarly prepd. were 70% benzodiimidazole (II) and bibenzimidazoles (III; X = SO2, bond).
IT **39823-41-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 39823-41-1 CA
CN 1H-Benzimidazole, 6,6'-sulfonylbis[1,2-diphenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 19 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 78:72645 CA
TITLE: Two-stage synthesis of poly(N-phenylbenzimidazoles)
AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Tugushi, D. S.; Cherkasova, G. M.
CORPORATE SOURCE: Inst. Elementorg. Compds., Moscow, USSR
SOURCE: Macromolecules (**1972**), 5(6), 807-12
CODEN: MAMOBX
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The low-temp. soln. polymn. of 1,3-diamino-4,6-dianilinobenzene (I), 3,3'-diamino-4,4'-dianilinobiphenyl, and 3,3'-diamino-4,4'-dianilinodiphenyl sulfone with various dicarboxylic acid dichlorides gave high-mol.-wt. poly(o-anilino amides), which were cyclized at 300-310.deg. to poly(N-phenylbenzimidazoles), which were sol. in HCOOH and tetrachloroethane-PhOH and formed strong films. For example, I and terephthaloyl chloride gave poly[imino(4,6-dianilino-m-phenylene)iminoterephthalyl] (II) [31497-73-1], which was cyclized to poly[(1,7-dihydro-1,7-diphenylbenzo[1,2-d:4,5-d']diimidazole-2,6-diyl)-p-phenylene] (III) [31497-74-2]. Twenty analogous polyamides and their corresponding polybenzimidazoles were also prepd., and dynamic and isothermal thermogravimetric anal. curves for 7 of the polybenzimidazoles were given and discussed. In addn., 20 model compds. were prepd.

IT **39823-41-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 39823-41-1 CA
CN 1H-Benzimidazole, 6,6'-sulfonylbis[1,2-diphenyl- (9CI) (CA INDEX NAME)



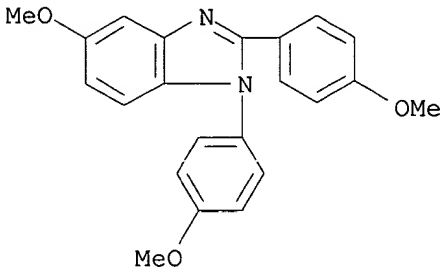
L7 ANSWER 20 OF 20 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 72:90473 CA
TITLE: Antiinflammatory substituted 1,2-diphenylbenzimidazoles
INVENTOR(S): Rohrbach, Philippe; Blum, Jean
PATENT ASSIGNEE(S): Manufactures J. R. Bottu
SOURCE: Brit., 8 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1174493		19691217	GB	19670510 <--

GI For diagram(s), see printed CA Issue.
AB The title compds. (I), antiinflammatory and analgesic agents of low toxicity, are prepd. by oxidative cyclization of II in the presence of PhNO2. Refluxing 10.5 g 4-MeOC6H4C6H3(NH2)2-1,2, 6.5 g 4-MeOC6H4CHO, and 40 ml MeOH 1 hr gave 10.5 g II (R = H, R1 = R2 =4-MeO) (III), m. 122.degree.. A soln. of 10.5 g III in 11 ml PhNO2 was refluxed 15 min to give 9.4 g I (R = H, R1 = R2 = 4-MeO) (IV), m. 151.degree. EtOH). The following intermediates (II) (oils) and I were similarly prepd. (R, R1, and R2 in II, and m.p. and % yield of corresponding I given): 5-MeO, 4-MeO, 4-MeO (m.92.degree.), 160.degree. (iso-PrOH), 50; 4-Me, 4-MeO, 4-MeO, 173.degree. (iso-PrOH), 32; 4-MeO, 4-MeO, 4-MeO, 140.degree. (iso-PrOH), 31; 4-F3C, 4-MeO, 4-MeO (V), 163.degree. (AcOEt), 27; H, 4-MeO, 4-Cl, 187.degree. (MeOH), 35; 4-Me, 4-MeO, 4-Cl, 193.degree. (iso-PrOH), 42; 4-Cl, 4-MeO, 4-MeO, 147-8.degree., (iso-PrOH), 57; H, 4-MeO, 4-Me, 136.degree. (iso-PrOH), 77.7; H, 4-MeO, 3-F3C, 144.degree. (EtOH), 30; H, 4-MeO, 3-Cl, 192.degree. (EtOH), 50; H, 4-Cl, 4-MeO, 158.degree. (iso-PrOH), 79; H, 4-(Et2NCH2CH2O), 4-MeO, 110.degree. (iso-PrOH), 43; 4-F3C, 4-HO, 4-MeO, 256.degree. (iso-PrOH), 10; H, 4-MeO, 2-Cl, 159.degree. (iso-PrOH), 47; 5-Me, 4-MeO, 4-MeO, [HCl salt m. 192-3.degree. (decompn.) (iso-PrOH)], -; H, 2-Cl, 4-MeO, [HCl salt m. 200.degree. (decompn.) (EtOH)], 26; H,4-MeO, 3-Cl, 122.degree. (iso-PrOH-petroleum ether), 54; H, 2-MeO,4-MeO, 124.degree. (iso-PrOH-petroleum ether), 35; 4-Me, 4-Me, 4-Me, 142.degree. (iso-PrOH), 60; H, 4-Me, 4-MeO, 149.degree. (AcOEt), 43; H, 4-CO2H, 4-MeO (m.p. 210.degree.), 268.degree. (AcOEt), 60. Antiinflammatory activity of IV

and V in the rat was obtained at 15 mg/kg orally while acute oral mouse toxicity (LD50) was absent at 3 g/kg (V) and 5 g/kg (IV); the human oral dose is 0.1-5 g daily.

IT **24784-40-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 24784-40-5 CA
CN Benzimidazole, 5-methoxy-1,2-bis(p-methoxyphenyl)- (8CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	92.78	233.27

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-12.39	-12.39

FILE 'CAOLD' ENTERED AT 09:39:58 ON 17 JUN 2002
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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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L3            353 S L1 FULL

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L4             21 S L3
L5              1 S L4 AND HALFBRODT, W?/AU
L6             20 S L4 NOT L5
L7             20 S L6 AND PD < FEBRUARY 2000

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L8              0 L3

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Executing the logoff script...

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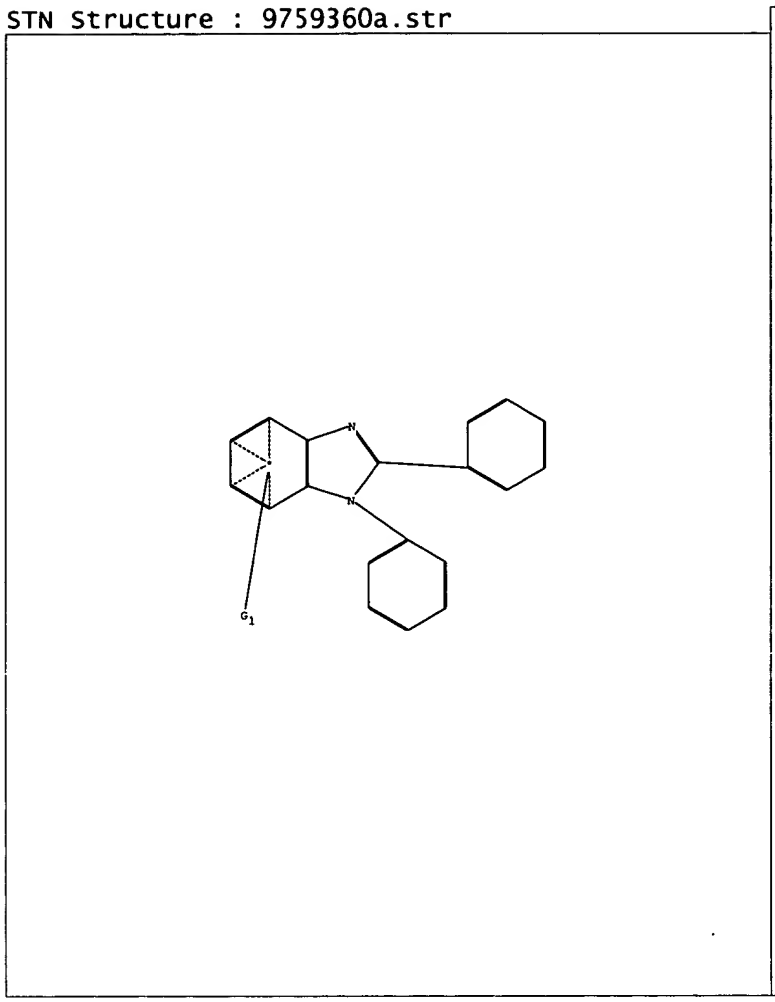

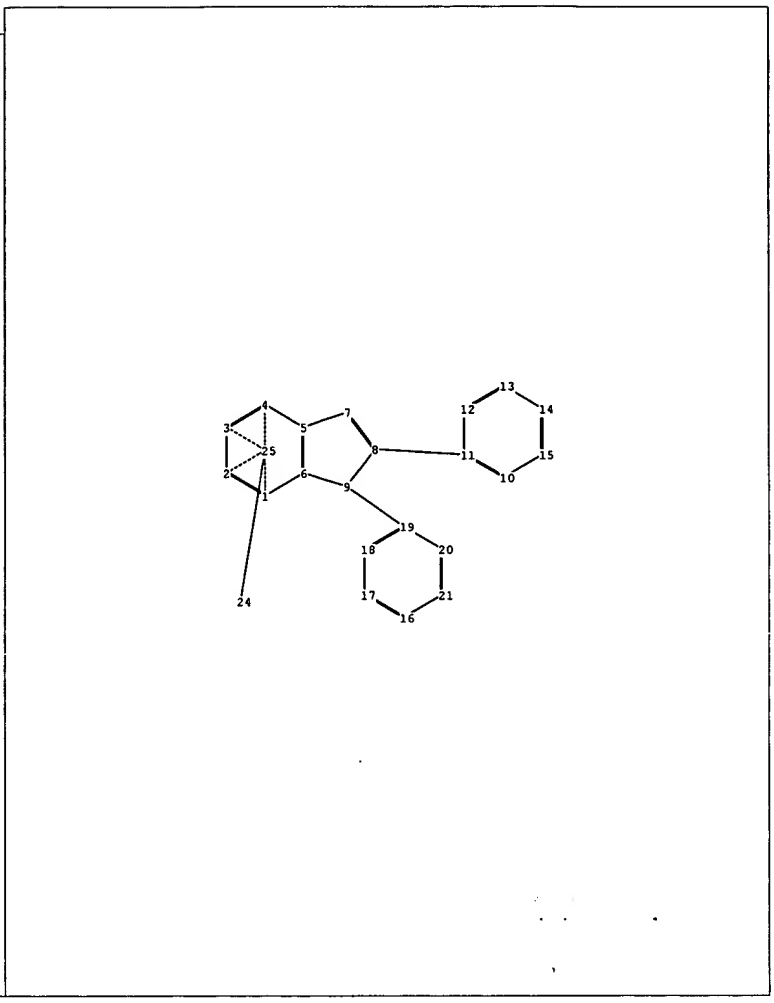

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ring nodes :
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chain bonds :
8-11 9-19
ring bonds :
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14-15 16-17 16-21 17-18 18-19 19-20 20-21
exact/norm bonds :
5-7 6-9 7-8 8-9 9-19
exact bonds :
8-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15 16-17 16-21
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isolated ring systems :
containing 1 : 10 : 16 :

G1:O,S

Match level :
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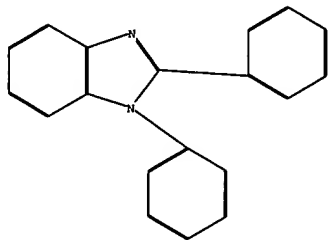

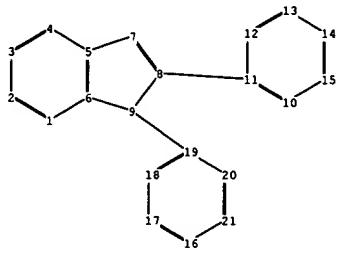

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chain bonds :
8-11 9-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 10-11 10-15 11-12 12-13 13-14
14-15 16-17 16-21 17-18 18-19 19-20 20-21
exact/norm bonds :
5-7 6-9 7-8 8-9 9-19
exact bonds :
8-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15 16-17 16-21
17-18 18-19 19-20 20-21
isolated ring systems :
containing 1 : 10 : 16 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom